

## 30KW WDG Compact Diesel Generator

FAW Engine | 60 Hz | 1800 RPM



### Increased availability for new operations

Reliable, robust and versatile generator.  
 Ready to deliver power for a next job.

### Increased uptime during operations

Once installed on the end-user-site,  
 the generator will be ready to run: "peace of  
 mind" operation.

### Reduced transport and installation costs

The compact and robust design with integrated  
 transport features enables faster and safer transport  
 and installation.

### Reduced service & maintenance costs

Longer service intervals.  
 Quicker, and more efficient service jobs.

### Premium resale value

Designed and built to last.

#### Basic technical data

Engine Model	Engine Model	4DX21-53D
No. of cylinders		4
Cylinder arrangement		In-line
Cycle		4 stroke
Aspiration		Natural
Cooling system		Water-cooled
Bore	in	4.02 in
Stroke	in	4.65 in
Compression ratio		17:1
Displacement	L	3.86
Dry engine weight	lbs	1400
Dimension (L*W*H)	in	83" x 36" x 39" in.
The Flywheel shell interface		SAE3-11.5"

## Performance Data

Governed Engine Speed	r/min	1800
Continuous Power without Fans	kW	39
Standby Power	kW	43
Adaptive power station (kw)	kW	32
Steady state speed regulation rate	%	5 / Mechanical 0-3 / Electronical
Emission Standards		CN Stage II
Noise Level	dB	≤ 109
Average effective pressure	mPa	0.67

## Lubrication system

Lubricating oil capacity	gallons	3.43 gal
Lubricating oil consumption	gal/h	≤0.011

## Fuel system

Fuel consumption PRP	g/kwh	2.308
Fuel consumption rate	g / kW x h	
25% prime power	g / kW x h	0.54 gal
50% prime power	g / kW x h	0.935 gal
75% prime power	g / kW x h	1.33 gal
100% prime power	g / kW x h	1.775 gal
100% standby power	g / kW x h	1.96 gal

## Air intake system

Air consumption	m <sup>3</sup> /min	3
Maximum allowed intake pressure	kPa	6.3
Exhaust gas discharge	m <sup>3</sup> /min	7.4
Exhaust temperature (exhaust gas after turbine)	°C	470
Exhaust heat	kw	32
Maximum allowed back pressure	kPa	6.7

## Heat balance

Engine heat output	kw	3.1
Heat removal of coolant	kw	25.7
Heat dissipation of intercooler	kw	0

## Cooling system

Fan Speed Ratio		1.68
Pump Flow head	gal/s	0.74
Coolant capacity - engine	gal	2.11 gal
Fan diameter	in	16.54
Fan speed	R/min	3027
Fan flow	m <sup>3</sup> /s/Pa	1.32 / 570
Fan power consumption	kW	2.25
Coolant capacity - radiator	gal	3.17
Thermostat on / off temperature	°C	
Pump Flow / Speed head		174 / 3200-10

## Electrical system

Auxiliary voltage	(V)	24 V
Alternator	(A)	35
Starter Motor	kw	4.5
Start preheater	kw	1.0
Number of teeth of flywheel ring gear		128

## Power Calibration Regulations

1. The diesel engine performance data specified above are based on the atmospheric environment specified in the GB/T6072.1/ISO3046-1 standard. The atmospheric pressure is 100kPa, the ambient temperature is 25°C, and the air humidity is 30%. Fuel calorific value 42.7mJ/kg.
2. Prime power refers to the output power that the diesel engine can run for a long time without time limit under this working condition.
3. Standby power refers to that the diesel engine is allowed to work continuously for 1 hour under the limited power of fuel volume every 6 hours.

## Power correction

1. The diesel engine can be used without reducing the power when the altitude is 400m and the ambient temperature is less than 40°C.
2. When the environment deviates from the standard, the operating power of the diesel engine shall be corrected according to the following table

Altitude < 3000m	% / m	4 / 500
Altitude > 3000m	% / m	6 / 500
Ambient Temperature	% / °C	2 / 5
Humidity	%	No correction

## Fuel consumption rate

Unless otherwise specified, the allowable deviation of calibrated fuel consumption rate at rated power is + 5%

## Alternator

Model	WDG-30-C	
Phase	1	
Voltage	V	120 / 240
Wiring Type	12 wires	
Bearing	1	
Power factor	1	
Frequency	Hz	60
Prime power	kW	30
Exciter Type	Brushless, self-excitation	
Voltage regulation	%	±0.5
Protection Grade	IP 23	
Insulation Grade	H	

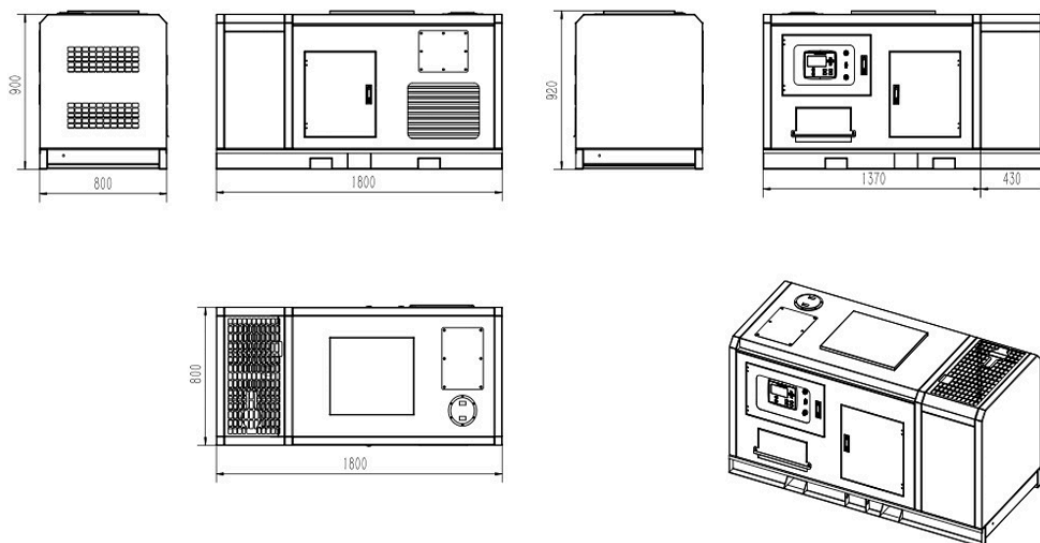
## Controller - SmartGen 6110

### Features

- Built-in governor and AVR control
- Base load (kW export) functionality
- Mains (utility) de-coupling protection
- Generator power (kW, kVA) monitoring
- Overload (kW & kV Ar) protection
- Emergency stop
- Start failure
- Etc.



## Unit Dimensions (basic unit)



25-V246

### Silent Type

L\*W\*H                      in  
Weight                      lbs

### Dimension and weight for reference only

83" x 36" x 39" in.  
1400 lbs